

### **Remarks**

The Applicants note with appreciation the acknowledgment of receipt of the priority documents. The Applicants also note that a certified translation of JP '376 has not been received. The Applicants have not filed such a certified translation and respectfully submit that such a certified translation is not necessary at this time. To the extent that the Applicants would employ their claim of priority to remove any prior art cited against the claims, such a certified translation would be filed at that time. However, that is not the situation at this time and the Applicants respectfully submit that a certified translation is indeed not needed.

The Applicants have amended the Specification to place it into final condition for allowance. Entry into the official file is respectfully requested.

Claims 1-2, 8, 11-12 and 19-24 stand rejected under 35 U.S.C. §112 as being indefinite. The Applicants note with appreciation the Examiner's detailed comments concerning individual issues with respect to selected claims. The Applicants have accordingly amended Claims 1, 8, 11-12 and 19, 20 and 21 to address those issues. The Applicants have also cancelled Claim 2 and amended selected others of the claims to place them into better form for allowance or correct minor grammatical errors. Details are set forth below.

Claim 1 has been amended to incorporate the subject matter of Claim 2 with respect to the missing oxycarbonyl reagent. Also, the "Y" of general formula (3) of amended Claim 1 has been identified as being a chlorine atom. Support may be found on page 8 of the Applicants' Specification in line 3, for example, which refers to chlorocarbonate esters. Obviously, such a chlorocarbonate ester includes a chlorine atom. Other changes have been made to Claim 1 for ease of readability. Also, the carbamoyl group and N-alkylcarbamoyl group has been removed. The Applicants respectfully submit that Claim 1 is now in full compliance with §112.

Claims 3 and 4 have been amended to account for the cancellation of Claim 2. Claims 3-7 have further been amended as to form.

Claim 8 has been amended to clarify the fact that the nitrogen-containing aromatic compound is an additive. Thus, Claim 8 now reads that nitrogen-containing aromatic compound coexists as an additive in oxycarbonylating the piperazine derivative represented by the general formula (1). The Applicants respectfully submit that Claim 8 is in compliance with §112.

Claims 9 and 10 have been amended as to form.

Claims 11 and 12 have been amended to provide appropriate antecedent basis. Further, Claim 12 has been amended to clarify what is intended. Thus, Claim 12 now reads that the optically active piperazine derivative obtained by optical resolution with a solvent which is 0.5 to 4.0 times as heavy as a racemic piperazine derivative in the presence of a lower carboxylic acid or mineral acid is used as the raw material. The Applicants respectfully submit that Claims 11 and 12 are in compliance with §112.

Claims 13-18 have been amended as to form.

Claim 19 has been amended to provide appropriate antecedent basis and to improve readability. Thus, Claim 19 now recites the process accordingly to Claim 1 wherein the oxycarbonyl-substituted piperazine derivative is refined by a step of washing using an organic solvent whose mutual solubility with water at 20°C is 10 wt% or less in a water solvent whose pH is 3 or less and/or a distillation step. Claim 20 has been similarly amended. The previous "water" was intended to mean a feature of the nature of water, namely an inherent feature of H<sub>2</sub>O. The amended "water" solvent means a water solvent to use for washing so that the water solvent may include other materials such as mineral acid. This is set forth in paragraphs [0078] to [0086] in the Applicants' Specification. The Applicants respectfully submit that Claims 19 and 20 are in compliance with §112.

Claim 21 has been amended as to form and to correct a typographical error. The third to the last line should now read "2% by HPLC area." The Applicants respectfully submit that Claim 21 is in compliance with §112.

Claims 22-24 have been amended as to form.

In light of the foregoing, the Applicants respectfully submit that all of Claims 1, 8, 11-12 and 19-24 are in compliance with §112. Withdrawal of the rejection is respectfully requested.

Claims 1-3, 5, 7, 11-12 and 15-17 stand rejected under 35 U.S.C. §102 as being anticipated by WO '492. The Applicants respectfully submit that the rejection is now moot with respect to Claim 2. The Applicants also respectfully submit that WO '492 is inapplicable to Claims 1, 3, 5, 7, 11-12 and 15-17. Reasons are set forth below:

As noted above, the Applicants have amended Claim 1 to remove reference to a carbamoyl group and a N-alkylcarbamoyl group. In sharp contrast, WO '492 discloses a reaction of (S)-2-tert-butylcarboxamide-piperazine. Inasmuch as the Applicants have removed the carbamoyl group and

the N-alkylcarbamoyl group with 1-4 carbon atoms in its alkyl group, the piperazine derivative represented by general formula (1) of the Applicants' Claim 1, such derivatives are completely different from the (S)-2-tert-butylcarboxamide-piperazine disclosed in WO '492.

Inasmuch as §102 requires that the prior art explicitly or implicitly disclose every claimed aspect and WO '492 fails to do this, the Applicants respectfully submit that WO '492 is inapplicable to Claims 1, 3, 5, 7, 11-12 and 15-17. Withdrawal of the rejection is respectfully requested.

The Applicants note with appreciation the indication that Claims 4, 6, 9-10, 13-14 and 18 would be allowable if rewritten into independent form. In view of the above amendments, the Applicants respectfully submit that all of Claims 1 and 3-24 are in condition for allowance.

In light of the foregoing, the Applicants respectfully submit that that the entire Application is also now in condition for allowance, which is respectfully requested.

Respectfully submitted,



T. Daniel Christenbury  
Reg. No. 31,750  
Attorney for Applicants

TDC/vbm  
(215) 656-3381